



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

025191 7590 07/12/2004
BURR & BROWN
PO BOX 7068
SYRACUSE, NY 13261-7068

EXAMINER

KOVALICK, VINCENT E

ART UNIT PAPER NUMBER

2673

DATE MAILED: 07/12/2004

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/803,744	03/08/2001	Yukihisa Takeuchi	789_067	8510

TITLE OF INVENTION: METHOD FOR PRODUCING DISPLAY APPARATUS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1330	\$300	\$1630	10/12/2004

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (703) 746-4000

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

025191 7590 07/12/2004

BURR & BROWN
PO BOX 7068
SYRACUSE, NY 13261-7068

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmittal

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (703) 746-4000, on the date indicated below.

_____	(Depositor's name)
_____	(Signature)
_____	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/803,744	03/08/2001	Yukihisa Takeuchi	789_067	8510

TITLE OF INVENTION: METHOD FOR PRODUCING DISPLAY APPARATUS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1330	\$300	\$1630	10/12/2004

EXAMINER	ART UNIT	CLASS-SUBCLASS
KOVALICK, VINCENT E	2673	345-690000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list
 (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
 (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent); ☐ individual ☐ corporation or other private group entity ☐ government

4a. The following fee(s) are enclosed:

- ☐ Issue Fee
☐ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s):

- ☐ A check in the amount of the fee(s) is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is not claiming SMALL ENTITY status. See, e.g., 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

(Authorized Signature)

(Date)

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMIT THIS FORM WITH FEE(S)



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/803,744	03/08/2001	Yukihisa Takeuchi	789_067	8510
025191	7590	07/12/2004	EXAMINER	
BURR & BROWN PO BOX 7068 SYRACUSE, NY 13261-7068			KOVALICK, VINCENT E	
			ART UNIT	PAPER NUMBER
			2673	
DATE MAILED: 07/12/2004				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 447 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 447 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

Notice of Allowability

Application No.

09/803,744

Examiner

Vincent E Kovalick

Applicant(s)

TAKEUCHI ET AL.

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to applicant's amendment dated June 23, 2004.
2. ☒ The allowed claim(s) is/are 12-37.
3. ☒ The drawings filed on 08 March 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 9,12,13,14 & 15
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.


Amare Mengistu
Primary Examiner

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to Applicant's Amendment dated June 23, 2004 in response to USPTO Office Action dated November 25, 2003.

The cancellation of claims 1-11, and the addition of new claims 18-37 have been noted and entered in the record.

Allowable Subject Matter

2. Claims 12-37 are allowed.
3. The following is an examiner's statement of reasons for allowance:
Relative to claims 12 and 32 the major difference between the teachings of the said prior art of record (USP 6,509,884, Kasahara et al. ; USP 6,493,468, Matsuura and USP 6,288,756, Shiota et al) and that of the instant invention is that said prior art of record **does not teach** a method for producing a display or optical switch apparatus constructed by arranging a plurality of display or optical switch units arranged with a plurality of display or optical switch components, said method comprising the steps of obtaining characteristic values for said respective display or optical switch units respectively; ranking said display or optical switch units on the basis of said obtained characteristic values; partitioning an arrangement area (Z10) for said plurality of display or optical switch units of said display or optical switch apparatus to designate ranks of said display or optical switch units to be arranged in respective areas (Z11, Z12); and arranging

Art Unit: 2673

said display units in accordance with said designation to manufacture said display or optical switch apparatus.

Regarding claims 18 and 26, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** a method for producing a display or optical switch apparatus constructed by arranging with a plurality of display or optical switch units arranged with a plurality of display or optical switch components, wherein said plurality of display or optical switch components which are arranged around said display or optical switch components, are included in a group of said display or optical switch components corresponding to $(2m + 1)$ rows aligned in a vertical direction, and they are included in a group of said display or optical switch components corresponding to $(2n + 1)$ columns aligned in a horizontal direction; regarding an obtained average value as said luminance target value of said display or optical switch component; and calculating luminance correction coefficients for said respective display or optical switch components on the basis of said luminance target values of said respective display or optical switch components.

Relative to claims 21 and 29, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** a method for producing a display or optical switch apparatus constructed by arranging a plurality of display or optical switch units arranged with a plurality of display or optical switch components comprising the method step of retrieving said display of optical switch component which exhibits a minimum value of said calculated luminance target values; and increasing said current luminance target value by a certain value for said retrieved display or optical switch component.

Art Unit: 2673

Regarding claims 22 and 30 the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** a method for producing a display or optical switch apparatus constructed by arranging a plurality of display or optical switch units arranged with a plurality of display or optical switch components comprising the method step of retrieving said display or optical switch component which exceeds a threshold value of said calculated luminance target values; and decreasing said current luminance target value to said threshold value for said retrieved display or optical switch component.

Relative to claim 23 the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** a method for producing a display apparatus constructed by arranging a plurality of display units arranged with a plurality of display components comprising the method steps of performing standardization for said calculated luminance target values for said respective display components in accordance with a color scheme respectively; making amendment so that value obtained after said standardization are included in a certain range; and performing a restoring process for values obtained after said amendment in accordance with said color scheme respectively to obtain luminance target values in consideration of said color temperature.

Regarding claims 25 and 31 the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** the method for producing said display or optical switch apparatus constructed by arranging a plurality of display or optical switch units arranged with a plurality of display or optical switch components wherein said display or optical switch unit is a display or optical switch unit comprising an

Art Unit: 2673

optical waveguide plate for introducing light from a light source thereinto, and a driving section provided opposingly to a first plate surface of said optical waveguide plate and arranged with said display or optical switch components of a number corresponding to a large number of picture elements, wherein a screen image corresponding to an image signal is displayed on said optical waveguide plate by controlling a displacement action of an actuator element of said display or optical switch component in a direction to make contact or separation with respect to said optical waveguide plate in accordance with an attribute of said image signal to be inputted so that leakage light is controlled at a predetermined portion of said optical waveguide plate.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

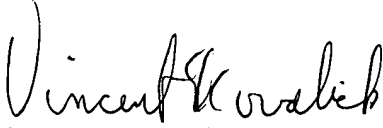
U. S. Patent No.	6,388,648	Clifton et al.
U. S. Patent No.	6,219,460	Tatsuta
U. S. Patent No.	6,091,397	Lee
U. S. Patent No.	6,020,868	Greene et al.
U. S. Patent No.	5,774,101	Hirai et al.
U. S. Patent No.	5,668,569	Green et al.
U. S. Patent No.	5,106,181	Rockwell, III


Responses

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent E Kovalick whose telephone number is 703 306-3020. The examiner can normally be reached on Monday-Thursday 7:30- 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 703 305-4938. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Vincent E. Kovalick
June 28, 2004


Amare Mengistu
Primary Examiner